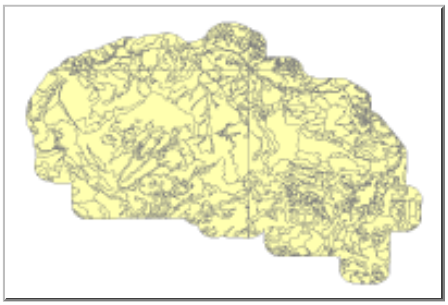
Digital General Soil Map of U.S. (STATSGO) for 20-km-buffered Navajo Nation



Data format: ArcInfo Coverage

File or table name: nnstsgob_all

Coordinate system: Geographic

Theme keywords: Soils, General Soil Map, State Soil Geographic, STATSGO, NRCS, USDA

Abstract: This data set contain general soil association polygon units. It was developed by the National Cooperative Soil Survey as the State Soil Geographic (STATSGO) data set, published in 1994. It consists of a broad based inventory of soils and nonsoil areas that occur in a repeatable pattern on the landscape and that can be cartographically shown at the scale mapped. The data set was created by generalizing more detailed soil survey maps. Where more detailed soil survey maps were not available, data on geology, topography, vegetation, and climate were assembled, together with Land Remote Sensing Satellite (LANDSAT) images. Soils of like areas were studied, and the probable classification and extent of the soils were determined. Map unit composition was determined by transecting or sampling areas on the more detailed maps and expanding the data statistically to characterize the whole map unit. This data set consists of georeferenced vector digital data and tabular digital data. The map data were collected in 1-by 2-degree topographic quadrangle units and merged into a seamless national data set. It is distributed in state/territory and national extents. The soil map units are linked to attributes in the National Soil Information System data base which gives the proportionate extent of the component soils and their properties. For this specific data set, the raw STATSGO spatial data were subsequently clipped to the 20-km-buffered Navajo Nation boundary. Final tabular data for each specific map unit was derived by averaging expected minimum and maximum parameter values, then flattening by map unit component percentages and relative soil horizon thicknesses for the various STATSGO parameters of interest.

FGDC and ESRI Metadata:

Metadata elements shown with blue text are defined in the Federal Geographic Data Committee's (FGDC) *Content Standard for Digital Geospatial Metadata (CSDGM)*. Elements shown with green text are defined in the *ESRI Profile of the CSDGM*. Elements shown with a green asterisk (*) will be automatically updated by ArcCatalog. ArcCatalog adds hints indicating which FGDC elements are mandatory; these are shown with gray text.

Identification Information:

Citation:

Citation information:

Originators: U.S. Department of Agriculture, Natural Resources Conservation Service

Title:

Digital General Soil Map of U.S. (STATSGO) for 20-km-buffered Navajo Nation

***File or table name:** nnstsgob_all

Publication date: 1994

Geospatial data presentation form: Tabular digital data and vector digital data

Publication information:

Publication place: Fort Worth, Texas

Publisher: U.S. Department of Agriculture, Natural Resources Conservation Service

Online linkage: /

Description:

Abstract:

This data set contain general soil association polygon units. It was developed by the National Cooperative Soil Survey as the State Soil Geographic (STATSGO) data set, published in 1994. It consists of a broad based inventory of soils and nonsoil areas that occur in a repeatable pattern on the landscape and that can be cartographically shown at the scale mapped. The data set was created by generalizing more detailed soil survey maps. Where more detailed soil survey maps were not available, data on geology, topography, vegetation, and climate were assembled, together with Land Remote Sensing Satellite (LANDSAT) images. Soils of like areas were studied, and the probable classification and extent of the soils were determined.

Map unit composition was determined by transecting or sampling areas on the more detailed maps and expanding the data statistically to characterize the whole map unit.

This data set consists of georeferenced vector digital data and tabular digital data. The map data were collected in 1-by 2-degree topographic quadrangle units and merged into a seamless national data set. It is distributed in state/territory and national extents. The soil map units are linked to attributes in the National Soil Information System data base which gives the proportionate extent of the component soils and their properties.

For this specific data set, the raw STATSGO spatial data were subsequently clipped to the 20-km-buffered Navajo Nation boundary. Final tabular data for each specific map unit was derived by averaging expected minimum and maximum parameter values, then flattening by map unit component percentages and relative soil horizon thicknesses for the various STATSGO parameters of interest.

Purpose:

These data provide information about soil features on or near the

surface of the Earth. Data were collected as part of the National Cooperative Soil Survey. These data are intended for geographic display and analysis at the state, regional, and national level. The data should be displayed and analyzed at scales appropriate for 1:250,000-scale data.

Supplemental information:
88 INFO tables accompany this dataset and may be related via the MUID field.

***Language of dataset:** en

Time period of content:
Time period information:
Range of dates/times:
Ending date: 1994

Currentness reference:
publication date

Status:
Progress: Complete
Maintenance and update frequency: As needed

Spatial domain:
Bounding coordinates:
West bounding coordinate: -110.0
East bounding coordinate: -102.0
North bounding coordinate: 41.0
South bounding coordinate: 37.0

Local bounding coordinates:
***Left bounding coordinate:** -112.086372
***Right bounding coordinate:** -106.701042
***Top bounding coordinate:** 37.642254
***Bottom bounding coordinate:** 34.098061

Keywords:
Theme:
Theme keywords: Soils, General Soil Map, State Soil Geographic, STATSGO, NRCS, USDA
Theme keyword thesaurus: None

Place:
Place keywords: Utah, Colorado, Arizona, New Mexico
Place keyword thesaurus: U.S. Department of Commerce, 1995, Countries, Dependencies, Areas of Special Sovereignty, and Their Principal Administrative Divisions (Federal Information Processing Standard 10-4): Washington, DC, National Institute of Standards and Technology.

Place:
Place keywords: USA
Place keyword thesaurus: None

Access constraints: None
Use constraints:
The U.S. Department of Agriculture, Natural Resources Conservation

Service should be acknowledged as the data source in products derived from these data. Hardcopies utilizing these data shall clearly indicate their source. User agrees not to misrepresent these data, nor to imply that changes made were approved by the Natural Resources Conservation Service.

The Digital General Soil Map of U.S. was designed primarily for regional, multicounty, river basin, State, and multistate resource planning, management, and monitoring. Data are not detailed enough to make interpretations at a county level. This soil survey product is not designed for use as a primary regulatory tool in permitting or citing decisions, but may be used as a reference source. The use of these data is not restricted and may be interpreted by organizations, agencies, units of government, or others; however, they are responsible for its appropriate application. Federal, State, or local regulatory bodies are not to reassign to the Natural Resources Conservation Service any authority for the decisions that they make. The Natural Resources Conservation Service will not perform any evaluations of these maps for purposes related solely to state or local regulatory programs.

When data from the Digital General Soil Map of U.S. are overlayed with other data layers, such as land use data, caution must be used in generating statistics on the co-occurence of the land use data with the soil data. The composition of the soil map unit can be characterized independently for the land use and for the soil component, but there are no data on their joint occurrence at a more detailed level. Analysis of the overlayed data should be on a map polygon basis.

Additional political, watershed, or other boundaries may be intersected with the soil data. Although the composition of each political and watershed unit may be described in terms of the soil map units, information is not available to assign the components to the boundary units with full accuracy. As with the land use categories, the analysis should be restricted to the classified components.

The approximate minimum area delineated is 625 hectares (1,544 acres), which is represented on a 1:250,000-scale map by an area approximately 1 cm by 1 cm (0.4 inch by 0.4 inch). Linear delineations are not less than 0.5 cm (0.2 inch) in width. The number of delineations per 1:250,000 quadrangle typically is 100 to 200, but may range up to 400. Delineations depict the dominant soils making up the landscape. Other dissimilar soils, too small to be delineated, are present within a delineation.

Digital enlargements of these data to scales greater than at which they were originally mapped can cause misinterpretation of the data. If enlarged, maps do not show the small areas of contrasting soils that could have been shown at a larger scale. The depicted soil boundaries, interpretations, and analysis derived from them do not eliminate the need for onsite sampling, testing, and detailed study of specific sites for intensive uses. Thus, these data and their interpretations are intended for planning purposes only.

Data values for some data elements may be incomplete or missing. Where data are unavailable, a mask should be used to exclude the area from analysis.

The spatial and tabular data used to create this product are periodically updated. Data are versioned, and users are responsible for obtaining the latest version of the product.

Point of contact:
Contact information:
Contact organization primary:
Contact organization: U.S. Department of Agriculture, Natural Resources Conservation Service
Contact position: State Soil Scientist

Contact address:
Address type: mailing address
Address:
USDA - Natural Resources Conservation Service
Address:
Alaska State Office
Address:
800 West Evergreen, Suite 100
City: Palmer
State or province: AK
Postal code: 99645-6546

***Native dataset format:** ArcInfo Coverage
***Native data set environment:**
Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 2; ESRI ArcCatalog 9.1.0.780

Cross reference:
Citation information:
Originators: U.S. Department of Agriculture, Natural Resources Conservation Service

Title:
State Soil Survey Geographic (STATSGO) data base

Publication date: 1994

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Data Quality Information:

Attribute accuracy:
Attribute accuracy report:
Accuracy is tested by manual comparison of the source with hard copy plots and/or symbolized display of the map data on an interactive computer graphic system. Selected attributes that cannot be visually verified on plots or on screen are interactively queried and verified on screen. In addition, the attributes are tested against a master set of valid attributes. All attribute data conform to the attribute codes in the signed classification

and correlation document and amendments and are current as of the date of digitizing.

Logical consistency report:

Certain node/geometry and topology (GT)-polygon/chain relationships are collected or generated to satisfy topological requirements. (The GT-polygon corresponds to the soil delineation). Some of these requirements include: chains must begin and end at nodes, chains must connect to each other at nodes, chains do not extend through nodes, left and right GT-polygons are defined for each chain element and are consistent throughout, and the chains representing the limits of the file (neatline) are free of gaps. The tests of logical consistency are performed using vendor software. The neatline is generated by connecting the explicitly entered four corners of the digital file. All data outside the enclosed region are ignored and all data crossing these geographically straight lines are clipped at the neatline. Data within a specified tolerance of the neatline are snapped to the neatline. Neatline straightening aligns the digitized edges of the digital data with the generated neatline (i.e., with the longitude/latitude lines in geographic coordinates). All internal polygons are tested for closure with vendor software and are checked on hard copy plots. All data are checked for common soil lines (i.e., adjacent polygons with the same label). Quadrangles are edge matched within the state, merged into a statewide data sets, and then edge matched to adjacent state data sets. Edge locations do not deviate from centerline to centerline by more than 0.01 inch.

Completeness report:

A map unit is a collection of areas defined and named the same in terms of their soil and/or nonsoil areas. Each map unit differs in some respect from all others in a survey area and is uniquely identified. Each individual area is a delineation. Each map unit in the Digital General Soil Map of U.S. consists of one to more than 21 components.

In those few areas where detailed maps did not exist, reconnaissance soil surveys were combined with data on geology, topography, vegetation, climate, and remote sensing images to delineate map units and estimate the percentages of components. Map unit components in this product are soil series phases, and their percent composition represents the estimated areal proportion of each within a map unit. The composition for a map unit is generalized to represent the statewide extent of that map unit and not the extent of any single map unit delineation. These specifications provide a nationally consistent representation of the associated attribute data.

The actual composition and interpretive purity of the map unit delineations were based on statistical analysis of transect data. The composition was largely determined by measuring transects on detailed soil survey maps. The number of transects used was proportional to the relative size, number, and complexity of the delineations. The combined data on the length of the map units crossed by the transects were used to determine the percentages

of the different soil and nonsoil areas in each map unit.

Specific National Cooperative Soil Survey Standards and procedures were used in the classification of soils, design and name of map units. These standards are outlined in U.S. Department of Agriculture. 2nd Ed., 1999. Soil Taxonomy: A basic system of soil classification for making and interpreting soil surveys. Nat. Res. Conserv. Serv., U.S. Dep. Agric. Handb. 436.; U.S. Department of Agriculture. 9th Ed., 2003. Keys to Soil Taxonomy. Soil Surv. staff, Nat. Res. Conserv. Serv.; U.S. Department of Agriculture. Current Issue. National Soil Survey Handbook, title 430-VI. Soil Surv. Staff, Nat. Res. Conserv. Serv.; and U.S. Department of Agriculture. 1993. Soil Survey Manual. Soil Surv. Staff, U.S. Dep. Agric. Handbook 18.

Adherence to National Cooperative Soil Survey standards and procedures is based on peer review, quality control, and quality assurance. Quality control is outlined in documents that reside with the Natural Resources Conservation Service state soil scientist.

Positional accuracy:

Horizontal positional accuracy:

Horizontal positional accuracy report:

The accuracy of these digital data is based upon their compilation to base maps that meet National Map Accuracy Standards. The difference in positional accuracy between the map unit boundaries in the field and their digitized map locations is unknown. The locational acuracy of soil delineations on the ground varies with the transition between map units.

For example, in areas where changes in soils, climate, topography, and geology occur subtly across a portion of a state, the transition between soil map unit boundaries will be gradual. Where these features change abruptly, such as from an area of foothills to a lake plain, the transition will be very narrow. Soil delineation boundaries were digitized within 0.01 inches of their locations on the digitizing source. The digital map elements are edge matched between data sets. The data along each state boundary are matched against the data for the adjacent state. Edge locations generally do not deviate from centerline to centerline by more than 0.01 inch.

Lineage:

Source information:

Source citation:

Citation information:

Originators: U.S Department of Agriculture, Natural Resources Conservation Service

Title:

multiple soil survey publications

Publication date: Unknown

Geospatial data presentation form: map

Publication information:
Publication place: Washington, D.C.
Publisher: U.S. Government Printing Office

Type of source media: paper
Source citation abbreviation:
SCS1
Source contribution:
base information for development of map unit delineations and transect data for naming map units

Source time period of content:
Time period information:
Single date/time:
Calendar date: unknown

Source currentness reference:
publication date

Source information:
Source citation:
Citation information:
Originators: U.S Department of Agriculture, Natural Resources Conservation Service

Title:
multiple reconnaissance, county, and State general soil maps

Publication date: Unknown
Geospatial data presentation form: map

Publication information:
Publication place: Washington, D.C.
Publisher: U.S. Government Printing Office

Type of source media: paper
Source citation abbreviation:
SCS2
Source contribution:
reference information for development of map unit delineations and transect data for naming map units where detailed surveys did not exist

Source time period of content:
Time period information:
Single date/time:
Calendar date: Unknown

Source currentness reference:
publication date

Source information:
Source citation:
Citation information:

Originators: U.S. Geological Survey

Title:
multiple maps

Publication date: Unknown
Geospatial data presentation form: map

Publication information:
Publication place: Reston, Virginia
Publisher: U.S. Geological Survey

Source scale denominator: 250000
Type of source media: stable-base material
Source citation abbreviation:
USGS1
Source contribution:
base materials for compilation of map unit delineation
linework

Source time period of content:
Time period information:
Single date/time:
Calendar date: Unknown

Source currentness reference:
publication date

Source information:
Source citation:
Citation information:
Originators: U.S Department of Agriculture, Natural Resources Conservation Service

Title:
multiple compiled mylar overlays of map unit delineations, unpublished

Publication date: Unknown
Geospatial data presentation form: annotated overlay

Type of source media: stable-base material
Source citation abbreviation:
SCS3
Source contribution:
digitizing source

Source time period of content:
Time period information:
Single date/time:
Calendar date: Unknown

Source currentness reference:
unknown

Source information:

Source citation:
Citation information:
Originators: U.S. Department of Agriculture, Natural Resources Conservation Service

Title:
State Soil Geographic (STATSGO) data base

Publication date: 1994
Geospatial data presentation form: digital data

Source scale denominator: 250000
Type of source media: CD-ROM
Source citation abbreviation:
SCS4
Source contribution:
source material of soil map unit delineations and soil symbols

Source time period of content:
Time period information:
Single date/time:
Calendar date: 1994

Source currentness reference:
1994

Source information:
Source citation:
Citation information:
Originators: U.S. Department of Agriculture, Natural Resources Conservation Service

Publication date: 2005
Geospatial data presentation form: tabular digital data

Publication information:
Publication place: Fort Collins, Colorado
Publisher: U.S. Department of Agriculture, Natural Resources Conservation Service

Source time period of content:
Time period information:
Range of dates/times:

Process step:
Process description:
Map unit composition was determined by transecting or sampling areas on the more detailed soil maps and expanding the data statistically to characterize the whole map unit.

Process date: 1994

Source used citation abbreviation:
SCS1

Process step:

Process description:

Soil map unit lines and symbols were drafted in red pencil on a mylar overlay that was punch registered to fit the mylar USGS 1:250,000-scale topographic quadrangle. A detailed and complete edit was performed on all overlays before digitizing. The soil delineation overlays were raster scanned at a scanning resolution of at least 0.01 inches and converted to a vector format or were manually digitized on a digitizing tablet with a resolution of at least 0.001 inches. Four control points corresponding to the four corners of the quadrangles were used for registration during data collection. The control points were either explicitly entered or developed by the software. The data sets were edge matched and merged into statewide coverages. A detailed and complete edit was performed on all digital data.

Process date: 1994

Source used citation abbreviation:

USGS1, SCS3

Process step:

Process description:

State coverages were merged into a seamless national coverage. This reduced tabular data redundancy and polygon number. A detailed and complete edit was performed on all digital data.

Process date: 2000

Source used citation abbreviation:

SCS4

Process step:

Process description:

In preparing this specific data set, the raw STATSGO spatial data for UT, CO, AZ, and NM were subsequently clipped to the 20-km-buffered Navajo Nation boundary and retained in a 'nnstsgob_all' Arc coverage. Final tabular data for each specific map unit was derived in Info by first averaging expected minimum and maximum parameter values, then by flattening map unit component percentages and relative soil horizon thicknesses by map unit identifier (MUID) for the various STATSGO parameters of interest. For the purposes of this shapefile, five key parameters were extracted from the coverage's attribute files: hydrologic group, depth to water table, K factor erodibility, permeability, and wind erodibility index.

Process software and version: ArcGIS 9.2 Desktop/Workstation
Process date: 20070511 - 20070513

Source used citation abbreviation:

C:\rdv\work\terraspectra\nmfuds\soils\nnstsgob_all.xml

Process contact:

Contact information:

Contact person primary:
Contact person: R.D. Van Remortel

Contact electronic mail address: rvanremo@gmail.com

Process step:
Process description:
Metadata imported and edited for compatibility with
the coverage's general metadata.

Source used citation abbreviation:
C:\rdv\work\terraspectra\nmfuds\soils\soil_metadata_us.xml

Process contact:
Contact information:
Contact person primary:
Contact person: R. D. Van Remortel

Contact electronic mail address: rvanremo@gmailcom

Process step:
Process description:
Dataset copied.

Source used citation abbreviation:
s:\naum_nn_summary\work\soils\statsgo_parameters_rick_vanr\temp6
\nnstsgob_all

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Spatial Data Organization Information:

Direct spatial reference method: Vector

Point and vector object information:
SDTS terms description:
*__Name:__ arc
*__SDTS point and vector object type:__ Complete chain
*__Point and vector object count:__ 2223

SDTS terms description:
*__Name:__ label
*__SDTS point and vector object type:__ Label point
*__Point and vector object count:__ 679

SDTS terms description:
*__Name:__ polygon
*__SDTS point and vector object type:__ GT-polygon composed of chains
*__Point and vector object count:__ 679

SDTS terms description:
*__Name:__ tic
*__SDTS point and vector object type:__ Point
*__Point and vector object count:__ 1343

SDTS terms description:
*__Name:__ annotation
*__SDTS point and vector object type:__ Label point
*__Point and vector object count:__ 0

ESRI terms description:
*__Name:__ arc
*__ESRI feature type:__ Simple
*__ESRI feature geometry:__ Arc
*__ESRI topology:__ FALSE
*__ESRI feature count:__ 2223
*__Spatial index:__ FALSE
*__Linear referencing:__ FALSE

ESRI terms description:
*__Name:__ label
*__ESRI feature type:__ Simple
*__ESRI feature geometry:__ Label
*__ESRI topology:__ FALSE
*__ESRI feature count:__ 679
*__Spatial index:__ FALSE
*__Linear referencing:__ FALSE

ESRI terms description:
*__Name:__ polygon
*__ESRI feature type:__ Simple
*__ESRI feature geometry:__ Polygon
*__ESRI topology:__ TRUE
*__ESRI feature count:__ 679
*__Spatial index:__ FALSE
*__Linear referencing:__ FALSE

ESRI terms description:
*__Name:__ tic
*__ESRI feature type:__ Simple
*__ESRI feature geometry:__ Tic
*__ESRI topology:__ FALSE
*__ESRI feature count:__ 1343
*__Spatial index:__ FALSE
*__Linear referencing:__ FALSE

ESRI terms description:
*__Name:__ annotation
*__ESRI feature type:__
*__ESRI feature geometry:__ Annotation
*__ESRI topology:__ FALSE
*__ESRI feature count:__ 0
*__Spatial index:__ FALSE
*__Linear referencing:__ FALSE

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Spatial Reference Information:

Horizontal coordinate system definition:

Coordinate system name:

***Geographic coordinate system name:** GCS_North_American_1983

Geographic:

Latitude resolution: 0.0000001
Longitude resolution: 0.0000001
Geographic coordinate units: Decimal degrees

Geodetic model:

Horizontal datum name: North American Datum of 1983
Ellipsoid name: Geodetic Reference System 80
Semi-major axis: 6378137.000000
Denominator of flattening ratio: 298.257222

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Entity and Attribute Information:

Detailed description:

***Name:** nnstsgob_all.pat

Entity type:

Entity type label: General soil map unit
***Entity type type:** Feature Class
***Entity type count:** 679
Entity type definition:
A closed polygon that consists of soils and nonsoil areas that occur in a repeatable pattern on the landscape and that can be cartographically shown at the scale mapped.
Entity type definition source:
NRCS National Cooperative Soil Survey

Attribute:

***Attribute label:** FID
***Attribute alias:** FID
***Attribute definition:**
Internal feature number.
***Attribute definition source:**
ESRI

***Attribute type:** OID
***Attribute width:** 4
***Attribute precision:** 0
***Attribute scale:** 0

Attribute domain values:

***Unrepresentable domain:**
Sequential unique whole numbers that are automatically generated.

Attribute:

***Attribute label:** Shape
***Attribute alias:** Shape

*Attribute definition:
Feature geometry.
*Attribute definition source:
ESRI

*Attribute type: Geometry
*Attribute width: 0
*Attribute precision: 0
*Attribute scale: 0

Attribute domain values:
*Unrepresentable domain:
Coordinates defining the features.

Attribute:
*Attribute label: AREA
*Attribute alias: NNSTSGOB_I
Attribute definition:
Area (sq. meters)
*Attribute definition source:
ESRI

*Attribute type: Float
*Attribute width: 4
*Attribute output width: 12
*Attribute number of decimals: 3

Attribute domain values:
*Unrepresentable domain:
Positive real numbers that are automatically generated.

Attribute:
*Attribute label: PERIMETER
*Attribute alias: MUID
Attribute definition:
Perimeter (meters)
*Attribute definition source:
ESRI

*Attribute type: Float
*Attribute width: 4
*Attribute output width: 12
*Attribute number of decimals: 3

Attribute domain values:
*Unrepresentable domain:
Positive real numbers that are automatically generated.

Attribute:
*Attribute label: NNSTSGOB_ALL#
*Attribute alias: HYDGRPWTAV
Attribute definition:
Cover#
*Attribute definition source:
ESRI

*Attribute type: Binary
*Attribute width: 4
*Attribute output width: 5

Attribute domain values:
*Unrepresentable domain:
Sequential unique whole numbers that are automatically generated.

Attribute:
*Attribute label: NNSTSGOB_ALL-ID
*Attribute alias: WTDEPWTAVG
Attribute definition:
Cover-ID
*Attribute definition source:
ESRI

*Attribute type: Binary
*Attribute width: 4
*Attribute output width: 5
*Attribute number of decimals: 1

Attribute domain values:
Unrepresentable domain:
Sequential unique whole numbers that are automatically generated but can be manually assigned by the user.

Attribute:
*Attribute label: MUID
*Attribute alias: KFAC1WTAVG
Attribute definition:
Map unit identifier in STATSGO

*Attribute type: Character
*Attribute width: 7
*Attribute output width: 7
*Attribute number of decimals: 2

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
Unique detailed identifier that can be used to differentiate a particular general soil map unit from all others.

Attribute:
*Attribute label: MLRA
*Attribute alias: PERMWTAVG
Attribute definition:
Major land resource area

*Attribute type: Character
*Attribute width: 4
*Attribute output width: 4
*Attribute number of decimals: 2

Attribute domain values:
Enumerated domain:

Enumerated domain value definition source:
The dominant major land resource area within which the soil map unit is mapped.

Attribute:
*__Attribute label:__ STHKWTAVG
*__Attribute alias:__ WEI1WTAVG
Attribute definition:
Soil profile thickness, wt avg

*__Attribute type:__ Number
*__Attribute width:__ 4
*__Attribute output width:__ 4
*__Attribute number of decimals:__ 1

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
STATSGO weighted-average soil thickness expressed in inches, i.e., depth to the shallower of a hardpan, rock layer, or 60 inches. The STATSGO layer file laydeph and laydepl values were averaged across layers (by layer thickness) and components (by component percentage) as the depth- and area-weighting factors.

Attribute:
*__Attribute label:__ HYDGRPWTAVGNUM
Attribute definition:
Hydrologic group (numeric scale), wt avg

*__Attribute type:__ Number
*__Attribute width:__ 4
*__Attribute output width:__ 4
*__Attribute number of decimals:__ 2

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
A numeric value between 1 and 4 identifying the hydrologic characteristics of the soil. The character codes defined in the STATSGO component file are converted into numeric codes according to Schwartz and Alexander, 1995). The coding transformations are A = 1 (high infiltration, deep soils, well drained to excessively drained sands and gravels), B = 2 (moderate infiltration rates, deep and moderately deep, moderately well and well drained soils with moderately coarse textures), C = 3 (slow infiltration rates, soils with layers impeding downward movement of water, or soils with moderately fine or fine textures), D = 4 (very slow infiltration rates, soils are clayey, have a high water table, or are shallow to an impervious layer). The transformed data are then averaged across components using the component percentage as the area-weighting factor.

Attribute:
*__Attribute label:__ HYDGRPWTAVG
Attribute definition:
Hydrologic group intergrade, wt avg

*Attribute type: Character
*Attribute width: 3
*Attribute output width: 3

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
A code identifying the hydrologic characteristics of the soil. The character codes defined in the STATSGO component file are converted into numeric codes according to Schwartz and Alexander, 1995). The coding transformations are A = 1 (high infiltration, deep soils, well drained to excessively drained sands and gravels), B = 2 (moderate infiltration rates, deep and moderately deep, moderately well and well drained soils with moderately coarse textures), C = 3 (slow infiltration rates, soils with layers impeding downward movement of water, or soils with moderately fine or fine textures), D = 4 (very slow infiltration rates, soils are clayey, have a high water table, or are shallow to an impervious layer). The transformed data are averaged across components using the component percentage as the area-weighting factor, then reapportioned into hydrologic group intergrades.

Attribute:
*Attribute label: HGPCT_A
Attribute definition:
Hydrologic group A %, wt avg

*Attribute type: Number
*Attribute width: 5
*Attribute output width: 5
*Attribute number of decimals: 1

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
Percentage of map unit in hydrologic group A

Attribute:
*Attribute label: HGPCT_B
Attribute definition:
Hydrologic group B %, wt avg

*Attribute type: Number
*Attribute width: 5
*Attribute output width: 5
*Attribute number of decimals: 1

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
Percentage of map unit in hydrologic group B

Attribute:
*Attribute label: HGPCT_C
Attribute definition:
Hydrologic group C %, wt avg

*Attribute type: Number
*Attribute width: 5
*Attribute output width: 5
*Attribute number of decimals: 1

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
Percentage of map unit in hydrologic group C

Attribute:
*Attribute label: HGPCT_D
Attribute definition:
Hydrologic group D %, wt avg

*Attribute type: Number
*Attribute width: 5
*Attribute output width: 5
*Attribute number of decimals: 1

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
Percentage of map unit in hydrologic group D

Attribute:
*Attribute label: HGPCT_AB
Attribute definition:
Hydrologic group A/B %, wt avg

*Attribute type: Number
*Attribute width: 5
*Attribute output width: 5
*Attribute number of decimals: 1

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
Percentage of map unit in hydrologic group A/B

Attribute:
*Attribute label: HGPCT_AC
Attribute definition:
Hydrologic group A/C %, wt avg

*Attribute type: Number
*Attribute width: 5
*Attribute output width: 5
*Attribute number of decimals: 1

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
Percentage of map unit in hydrologic group A/C

Attribute:

*Attribute label: HGPCT_AD
Attribute definition:
Hydrologic group A/D %, wt avg

*Attribute type: Number
*Attribute width: 5
*Attribute output width: 5
*Attribute number of decimals: 1

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
Percentage of map unit in hydrologic group A/D

Attribute:
*Attribute label: HGPCT_BC
Attribute definition:
Hydrologic group B/C %, wt avg

*Attribute type: Number
*Attribute width: 5
*Attribute output width: 5
*Attribute number of decimals: 1

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
Percentage of map unit in hydrologic group B/C

Attribute:
*Attribute label: HGPCT_BD
Attribute definition:
Hydrologic group B/D %, wt avg

*Attribute type: Number
*Attribute width: 5
*Attribute output width: 5
*Attribute number of decimals: 1

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
Percentage of map unit in hydrologic group B/D

Attribute:
*Attribute label: HGPCT_CD
Attribute definition:
Hydrologic group C/D %, wt avg

*Attribute type: Number
*Attribute width: 5
*Attribute output width: 5
*Attribute number of decimals: 1

Attribute domain values:
Enumerated domain:

Enumerated domain value definition source:
Percentage of map unit in hydrologic group C/D

Attribute:
*__Attribute label:__ HGPCT_VAR
Attribute definition:
Hydrologic group VAR %, wt avg

*__Attribute type:__ Number
*__Attribute width:__ 5
*__Attribute output width:__ 5
*__Attribute number of decimals:__ 1

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
Percentage of map unit in hydrologic group VAR

Attribute:
*__Attribute label:__ HGPCT_ND
Attribute definition:
Hydrologic group ND %, wt avg

*__Attribute type:__ Number
*__Attribute width:__ 5
*__Attribute output width:__ 5
*__Attribute number of decimals:__ 1

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
Percentage of map unit in hydrologic group ND

Attribute:
*__Attribute label:__ WTDEPWTAVG
Attribute definition:
Depth to water table (feet), wt avg

*__Attribute type:__ Number
*__Attribute width:__ 4
*__Attribute output width:__ 4
*__Attribute number of decimals:__ 1

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
STATSGO weighted-average soil drainage expressed as depth to water table in feet. The STATSGO component file wtdeph and wtdepl values were averaged across components using the component percentage as the area-weighting factor.

Attribute:
*__Attribute label:__ KFAC1WTAVG
Attribute definition:
K factor adj for rock frags, wt avg

*Attribute type: Number
*Attribute width: 4
*Attribute output width: 4
*Attribute number of decimals: 2

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
RUSLE weighted-average effect of inherent soil surface erodibility adjusted for rock fragments (K factor), from STATSGO. An erodibility factor which quantifies the susceptibility of soil particles to detachment and movement by water. Often used in the Universal Soil Loss Equation to estimate soil loss by water in soils with high quantities of rock fragments. The STATSGO layer file kfact value for the surface layer was averaged across components using the component percentage as the area-weighting factor.

Attribute:
*Attribute label: CLAY1WTAVG
Attribute definition:
Surface horizon USDA clay %, wt avg

*Attribute type: Number
*Attribute width: 4
*Attribute output width: 4
*Attribute number of decimals: 1

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
STATSGO weighted-average soil surface horizon USDA clay fraction expressed as percent by weight of the <2-mm soil fraction. The STATSGO layer file clayh and clayl values for the surface layer were averaged across components using the component percentage as the area-weighting factor.

Attribute:
*Attribute label: OMWTAVG
Attribute definition:
Organic matter %, wt avg

*Attribute type: Number
*Attribute width: 4
*Attribute output width: 4
*Attribute number of decimals: 1

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
STATSGO weighted-average soil organic matter content expressed as percent by weight of the <2-mm soil fraction. The STATSGO layer file omh and oml values were averaged across layers (by layer thickness) and components (by component percentage) as the depth- and area-weighting factors.

Attribute:

*__Attribute label:__ CACO3WTAVG
__Attribute definition:__
Calcium carbonate equiv %, wt avg

*__Attribute type:__ Number
*__Attribute width:__ 4
*__Attribute output width:__ 4
*__Attribute number of decimals:__ 1

__Attribute domain values:__
__Enumerated domain:__
__Enumerated domain value definition source:__
STATSGO weighted-average soil calcium carbonate equivalent expressed as percent by weight of the <2-mm soil fraction. The STATSGO layer file caco3h and caco3l values were averaged across layers (by layer thickness) and components (by component percentage) as the depth- and area-weighting factors.

__Attribute:__
*__Attribute label:__ BDWTAVG
__Attribute definition:__
Bulk density (Mg/m3), wt avg

*__Attribute type:__ Number
*__Attribute width:__ 4
*__Attribute output width:__ 4
*__Attribute number of decimals:__ 2

__Attribute domain values:__
__Enumerated domain:__
__Enumerated domain value definition source:__
STATSGO weighted-average soil bulk density expressed in megagrams per cubic meter of the <2-mm soil fraction. The STATSGO layer file bdh and bdl values were averaged across layers (by layer thickness) and components (by component percentage) as the depth- and area-weighting factors.

__Attribute:__
*__Attribute label:__ AWCWTAVG
__Attribute definition:__
Available water capacity (inches/inch), wt avg

*__Attribute type:__ Number
*__Attribute width:__ 4
*__Attribute output width:__ 4
*__Attribute number of decimals:__ 2

__Attribute domain values:__
__Enumerated domain:__
__Enumerated domain value definition source:__
STATSGO weighted-average soil available water capacity expressed in inches of water per inch of soil. The STATSGO layer file awch and awcl values were averaged across layers (by layer thickness) and components (by component percentage) as the depth- and area-weighting factors.

Attribute:

*__Attribute label:__ PERMWTAVG

Attribute definition:

Permeability rate (inches/hour), wt avg

*__Attribute type:__ Number
*__Attribute width:__ 5
*__Attribute output width:__ 5
*__Attribute number of decimals:__ 2

Attribute domain values:

Enumerated domain:

Enumerated domain value definition source:

STATSGO weighted-average soil permeability rate expressed as inches per hour. The STATSGO layer file permh and perml values were averaged across layers (by layer thickness) and components (by component percentage) as the depth- and area-weighting factors.

Attribute:

*__Attribute label:__ BLDRWTAVG

Attribute definition:

Physical habitat EMAP boulders %, wt avg

*__Attribute type:__ Number
*__Attribute width:__ 5
*__Attribute output width:__ 5
*__Attribute number of decimals:__ 1

Attribute domain values:

Enumerated domain:

Enumerated domain value definition source:

STATSGO weighted-average soil boulders fraction (> 250-mm and < 4000-mm diameter) using approximate EMAP physical habitat substrate criteria, expressed as percent by weight

Attribute:

*__Attribute label:__ CBBLWTAVG

Attribute definition:

Physical habitat EMAP cobbles %, wt avg

*__Attribute type:__ Number
*__Attribute width:__ 5
*__Attribute output width:__ 5
*__Attribute number of decimals:__ 1

Attribute domain values:

Enumerated domain:

Enumerated domain value definition source:

STATSGO weighted-average soil cobbles fraction (> 75-mm and < 250-mm diameter) using approximate EMAP physical habitat substrate criteria, expressed as percent by weight. The appropriate STATSGO layer file high and low sieve analysis values were averaged across layers (by layer thickness) and components (by component percentage) as the depth- and area-weighting factors.

Attribute:

*Attribute label: CGRVLWTAVG
Attribute definition:
Physical habitat EMAP coarse gravel %, wt avg

*Attribute type: Number
*Attribute width: 5
*Attribute output width: 5
*Attribute number of decimals: 1

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
STATSGO weighted-average soil coarse gravel fraction (> 5-mm and < 75-mm diameter) using approximate EMAP physical habitat substrate criteria, expressed as percent by weight. The appropriate STATSGO layer file high and low sieve analysis values were averaged across layers (by layer thickness) and components (by component percentage) as the depth- and area-weighting factors.

Attribute:
*Attribute label: FGRVLWTAVG
Attribute definition:
Physical habitat EMAP fine gravel %, wt avg

*Attribute type: Number
*Attribute width: 5
*Attribute output width: 5
*Attribute number of decimals: 1

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
STATSGO weighted-average soil fine gravel fraction (> 2-mm and < 5-mm diameter) using approximate EMAP physical habitat substrate criteria, expressed as percent by weight. The appropriate STATSGO layer file high and low sieve analysis values were averaged across layers (by layer thickness) and components (by component percentage) as the depth- and area-weighting factors.

Attribute:
*Attribute label: SNDWTAVG
Attribute definition:
Physical habitat EMAP sand %, wt avg

*Attribute type: Number
*Attribute width: 5
*Attribute output width: 5
*Attribute number of decimals: 1

Attribute domain values:
Enumerated domain:
Enumerated domain value definition source:
STATSGO weighted-average soil sand fraction (> 0.075-mm and <2-mm diameter) using approximate EMAP physical habitat substrate criteria, expressed as percent by weight. The appropriate STATSGO layer file high and low sieve analysis values were averaged across

layers (by layer thickness) and components (by component percentage) as the depth- and area-weighting factors.

Attribute:

***Attribute label:** FNSWTAVG

Attribute definition:

Physical habitat EMAP fines %, wt avg

***Attribute type:** Number
***Attribute width:** 5
***Attribute output width:** 5
***Attribute number of decimals:** 1

Attribute domain values:

Enumerated domain:

Enumerated domain value definition source:

STATSGO weighted-average soil fines fraction (< 0.075-mm diameter) using approximate EMAP physical habitat substrate criteria, expressed as percent by weight. The appropriate STATSGO layer file high and low sieve analysis values were averaged across layers (by layer thickness) and components (by component percentage) as the depth- and area-weighting factors.

Attribute:

***Attribute label:** SANDWTAVG

Attribute definition:

USDA sand fraction %, wt avg

***Attribute type:** Number
***Attribute width:** 5
***Attribute output width:** 5
***Attribute number of decimals:** 1

Attribute domain values:

Enumerated domain:

Enumerated domain value definition source:

STATSGO weighted-average USDA soil sand fraction (0.05-mm to 2-mm diameter) expressed as percent by weight of the <2-mm soil fraction. The STATSGO layer file sandh and sandl values were averaged across layers (by layer thickness) and components (by component percentage) as the depth- and area-weighting factors.

Attribute:

***Attribute label:** CLAYWTAVG

Attribute definition:

USDA clay fraction %, wt avg

***Attribute type:** Number
***Attribute width:** 4
***Attribute output width:** 4
***Attribute number of decimals:** 1

Attribute domain values:

Enumerated domain:

Enumerated domain value definition source:

STATSGO weighted-average USDA soil clay fraction (< 0.002-mm

diameter) expressed as percent by weight of the <2-mm soil fraction. The STATSGO layer file sandh and sandl values were averaged across layers (by layer thickness) and components (by component percentage) as the depth- and area-weighting factors.

Attribute:

*__Attribute label:__ GYPSUMWTAVG

Attribute definition:

Gypsum %, wt avg

*__Attribute type:__ Number
*__Attribute width:__ 4
*__Attribute output width:__ 4
*__Attribute number of decimals:__ 1

Attribute domain values:

Enumerated domain:

Enumerated domain value definition source:

STATSGO weighted-average soil gypsum content expressed as percent by weight of the <20-mm soil fraction. The STATSGO layer file gypsumh and gypsuml values were averaged across layers (by layer thickness) and components (by component percentage) as the depth- and area-weighting factors.

Attribute:

*__Attribute label:__ RSPWTAVG

Attribute definition:

Range site productivity (lbs/acre/year), wt avg

*__Attribute type:__ Integer
*__Attribute width:__ 5
*__Attribute output width:__ 5

Attribute domain values:

Enumerated domain:

Enumerated domain value definition source:

STATSGO weighted-average range site production expressed in pounds per acre per year. The STATSGO rsprod file prodnorm value was averaged across components using the component percentage as the area-weighting factor.

Attribute:

*__Attribute label:__ SALINWTAVG

Attribute definition:

Salinity (mmhos/cm), wt avg

*__Attribute type:__ Number
*__Attribute width:__ 5
*__Attribute output width:__ 5
*__Attribute number of decimals:__ 1

Attribute domain values:

Enumerated domain:

Enumerated domain value definition source:

STATSGO weighted-average soil salinity expressed as millimhos per centimeter of electrical conductivity within the <2-mm soil fraction.

The STATSGO layer file salinh and salinl values were averaged across layers (by layer thickness) and components (by component percentage) as the depth- and area-weighting factors.

Attribute:

*__Attribute label:__ SARWTAVG

Attribute definition:

Sodium absorption ratio, wt avg

*__Attribute type:__ Number
*__Attribute width:__ 5
*__Attribute output width:__ 5
*__Attribute number of decimals:__ 1

Attribute domain values:

Enumerated domain:

Enumerated domain value definition source:

STATSGO weighted-average soil sodium absorption ratio of the <2-mm soil fraction. The STATSGO layer file sarh and sarl values were averaged across layers (by layer thickness) and components (by component percentage) as the depth- and area-weighting factors.

Attribute:

*__Attribute label:__ WEI1WTAVG

Attribute definition:

Wind erodibility index (tons/acre/year), wt avg

*__Attribute type:__ Integer
*__Attribute width:__ 3
*__Attribute output width:__ 3

Attribute domain values:

Enumerated domain:

Enumerated domain value definition source:

STATSGO weighted-average soil surface wind erodibility index expressed in tons per acre per year, developed from the STATSGO layer file 2-character code for WEG (wind erodibility group) converted to numeric codes. The coding transformations were WEG 1 = 310, WEG 2 = 134, WEG 3 = 86, WEG 4 = 86, WEG 4L = 86, WEG 5 = 56, WEG 6 = 48, WEG 7 = 38, WEG 8 = 0. The transformed data were then averaged across components using the component percentage as the area-weighting factor. [A detailed description follows: WEG 1, Surface texture - VFS,FS,S,COS, percent aggregates = 1, WEI = 310 t/a/y. WEG 2, Surface texture - LVFS,LFS,LCOS,Sapric material, percent aggregates = 10, WEI = 134 t/a/y. WEG 3, Surface texture - VFSL,FSL,SL,COSL, percent aggregates = 25, WEI = 86 t/a/y. WEG 4, Surface Texture - C,SIC,noncalcareous CL,SICL(>35% clay), percent aggregates = 25, WEI = 86 t/a/y. WEG 4L, Surface texture - calcareous L/SIL/CL,SICL, percent aggregates = 25, WEI = 86 t/a/y. WEG 5, Surface textue - noncalcareous L/SIL(<20% clay),SCL,SC, percent aggregates = 40, WEI = 56 t/a/y. WEG 6, Surface texture - noncalcareous L/SIL(>20% clay),CL(<35% clay), percent aggregates = 45, WEI = 48 t/a/y. WEG 7, Surface texture - SI, noncalcareous SICL(<35% clay), percent aggregates = 50, WEI = 38 t/a/y. WEG 8, Erosion not a problem - 0 t/a/y.]

Overview description:

Entity and attribute overview:

Map unit delineations (i.e., MUID) are closed polygons that are geographic mixtures of groups of soils or soils and nonsoil areas. The MUID variable uniquely identifies each specific type of closed map unit delineation.

Entity and attribute detail citation:

U.S. Department of Agriculture. 2nd Ed., 1999. Soil Taxonomy: A basic system of soil classification for making and interpreting soil surveys. Nat. Res. Conserv. Serv., U.S. Dep. Agric. Handb. 436.

U.S. Department of Agriculture. 9th Ed., 2003. Keys to Soil Taxonomy. Soil Surv. Staff, Nat. Res. Conserv. Serv.

U.S. Department of Agriculture. Current Issue. National Soil Survey Handbook, title 430-VI. Soil Surv. Staff, Nat. Res. Conserv. Serv.

U.S. Department of Agriculture. 1993. Soil Survey Manual. Soil Surv. Staff, U.S. Dep. Agric. Handbook 18.

U.S. Department of Agriculture. 1994. State Soil Geographic (STATSGO) Data Base: Data use information. Soil Conserv. Serv.

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Distribution Information:

Resource description: Downloadable Data

Standard order process:

Digital form:

Digital transfer information:

***Transfer size:** 1.417

***Dataset size:** 1.417

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Metadata Reference Information:

Metadata date: 20070516

***Language of metadata:** en

Metadata contact:

Contact information:

Contact organization primary:

Contact organization: U.S. Department of Agriculture, Natural Resources Conservation Service

Contact position: State Soil Scientist

Contact address:
Address type: mailing address
Address:
USDA - Natural Resources Conservation Service
Address:
Alaska State Office
Address:
800 West Evergreen, Suite 100

Metadata standard name: Content Standards for Digital Geospatial Metadata
Metadata standard version: FGDC-STD-001-1998
***Metadata time convention:** local time

Metadata use constraints:
none

Metadata extensions:
***Online linkage:** http://www.esri.com/metadata/esriprof80.html
***Profile name:** ESRI Metadata Profile

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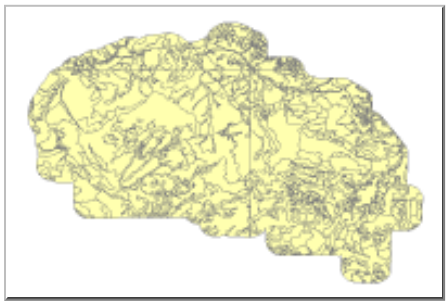
Binary Enclosures:

Thumbnail:
Enclosure type: Picture



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